



United Nations Statistics Division

Statistical units

United Nations Statistics Division



Caution

- many factors play a role in defining the best statistical unit for a given form of data collection
 - structure of the legal system in a country
 - regulations for the organization of businesses
 - particular structure of the industries involved
 - type of data collection involved
 - purpose and targeted level of data collection etc.



Caution

- ❑ Statistical units discussed here can be taken to serve as models but the actual choice of the type of the statistical unit to be used by countries depends upon national practice, type and the purpose of statistical activities involved



Ideal unit

- From the point of view of the data collection, the most convenient way to obtain statistical data would be to collect them for entities for which complete sets of required records are available
- However, legal and operational structures of economic entities, as well as their record keeping practices, are usually not developed to suit statistical purposes



Ideal unit

- ❑ As a consequence, standards relating to guidelines for collection, reporting and statistical units have been adopted for the purpose of data collection and dissemination so that comparable national and international statistics can be produced
- ❑ Resulting statistical units serve as a tool to measure in an unduplicated and exhaustive manner several aspects of the economy



Choice of unit

- Economic entities have numerous characteristics and a variety of data are required about them that may be classified in many ways
- Most important:
 - by institutional sector
 - by activity
 - by geographical region
- Requirement:
 - The units need to be as homogeneous as possible with respect to these dimensions
 - Data on their activities are available or can be meaningfully compiled



Choice of unit

- ❑ Statistics must also reflect the organizational structure of production. Units used in statistics should preferably be perceived by their managers and the outside world as viable and operational unit, i.e. they should have a relative degree of autonomy
- ❑ The purpose of delineating different statistical units is to identify the economic actors in the economy, i.e. the levels in the organization of an enterprise at which the financial decisions are taken on the one hand and the levels at which production decisions are taken on the other
- ❑ Production decisions will more often than not be taken for the homogeneous process



Statistical units

- ❑ A statistical unit is an entity about which information is sought and for which statistics are ultimately compiled
- ❑ It is the unit at the basis of statistical aggregates and to which tabulated data refer



Statistical units

- These units can be divided into two categories:
- *observation units* – identifiable legal/organizational or physical entities which are able, actually or potentially, to report data about their activities;
- (b) *analytical units* – entities created by statisticians, often by splitting or combining observation units in order to compile more detailed and more homogeneous statistics than what is possible by using data on observation units
 - Analytical units are not able to report data themselves about their activities, but there exist indirect methods of statistical estimation including imputation of such data



Collection and reporting units

- ❑ For operational purposes, a distinction is made between statistical, collection and reporting units
- ❑ A *collection unit* is the unit *from which* data are obtained and by which questionnaire survey forms are completed
 - it is more a contact address than a unit
 - Sometimes the questionnaire is filled in by a central administrative office or an accountancy firm who provides this service to its client
- ❑ A *reporting unit* is the unit *about which* data are reported
 - Reporting units will, in most cases, coincide with the units for which statistics are compiled, like in the case of single-establishment enterprises where the enterprise and the establishment are identical
 - In the case of multi-establishment enterprises, however, the enterprise may make a separate return for each establishment, or each establishment may make a return for itself.



Legal entities

- Most societies provide for the legal recognition of economic entities, under laws that enable them to define and register themselves as legal entities
 - Legal entities are recognized by law or society, independently of the persons or institutions that own them
- Characteristics of a legal entity:
 - they own assets, they incur liabilities, and they enter into transactions with other entities.
- The legal unit always forms, either by itself or sometimes in combination with other legal units, the basis for the statistical unit.



Types of statistical units

- Institutional unit
- Enterprise group
- Enterprise
- Establishment
- Others:
 - Kind-of-activity unit
 - Unit of homogeneous production
 - Local unit
 - Local kind-of-activity unit
 - Local unit of homogenous production



Institutional unit

- Institutional units are the core unit of the System of National Accounts
- All subsequent definitions embody the definition of this basic unit
- The main attributes of institutional units are:
 - (a) An institutional unit is entitled to own goods or assets in its own right; it is therefore able to exchange the ownership of goods or assets in transactions with other institutional units;
 - (b) It is able to take economic decisions and engage in economic activities for which it is itself held to be directly responsible and accountable at law;
 - (c) It is able to incur liabilities on its own behalf, to take on other obligations or future commitments and to enter into contracts;
 - (d) Either it has a complete set of accounts, including a balance sheet of assets and liabilities, or it would be possible and meaningful, from both an economic and legal viewpoint, to compile for it a complete set of accounts if required



Institutional units

- There are two main types of units in the real world that may qualify as institutional units:
 - persons or groups of persons in the form of households
 - legal or social entities whose existence is recognized by law or society independently of the persons, or other entities, which may own or control them such as a corporation, non-profit institution (NPI) or government unit
- Such units are responsible and accountable for the economic decisions or actions they take, although their autonomy may be constrained to some extent by other institutional units
 - e.g. corporations are ultimately controlled by their shareholders



Institutional units

- ❑ In the majority of cases, an institutional unit will be a single legal entity
- ❑ However, some corporations may be composed of legal entities set up for convenience as tax shelters or for other administrative reasons.
- ❑ In such cases, for statistical purposes it is inappropriate and unnecessary to regard each legal entity as a separate institutional unit.



Institutional units

- If a corporation has a principal activity supported by units engaged in purely ancillary activities that are registered as separate legal entities, these should not be treated as separate establishments except when
 - (a) such units are statistically observable (separate accounts of their production activities are readily available), or
 - (b) these are located at geographically different locations from the corporation they serve



Enterprise group

- ❑ Enterprises under the control of the same owner form a group to achieve economic advantages such as, economies of scale, control of a wider market, increase in the domestic productivity through more effective business management
- ❑ Integration economies lead to formation of vertical groups, where an enterprise takes control over another enterprise either producing raw material or semi manufactures products (backward integration) or distributing and selling its final product (forward integration)



Enterprise group

- An enterprise group is a set of enterprises controlled by the group head
 - The group head is a parent legal unit which is not controlled either directly or indirectly by any other legal unit
 - It can have more than one decision-making centre, especially for the policy on production, sales and profits or may centralize certain aspects of financial management and taxation
 - It constitutes an economic entity which is empowered to make choices, particularly concerning the units which it comprises

- The enterprise group as a unit is particularly useful for financial analyses and for studying company strategies
 - however, it is too varied in nature and unstable to be adopted as a unit for statistical surveys and analysis



Enterprise

- An institutional unit in its capacity as a producer of goods and services is known as an enterprise
- An enterprise is an economic transactor with autonomy in respect of financial and investment decision-making, as well as authority and responsibility for allocating resources for the production of goods and services
 - It may be engaged in one or more economic activities at one or more locations
 - An enterprise may be a sole legal unit



Enterprise

- The enterprise is the smallest legal unit that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources
- The enterprise is the basic statistical unit at which all information relating to its production activities and transactions including financial and balance sheet accounts are maintained and from which international transactions, an international investment position (when applicable), consolidated financial position and the net worth can be derived
 - It is also used for institutional sector classification in the SNA



Establishment

- The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single productive activity is carried out or in which the principal productive activity accounts for most of the value added
- In other words, an establishment can be defined, ideally, as an economic unit that engages, under a single ownership or control - that is, under a single legal entity – in one, or predominantly one, kind of economic activity at a single physical location - for example, a mine, factory or workshop.



Establishment

- For production accounts, although the enterprise can serve as the basic statistical unit, the use of the establishment is preferable for two reasons:
 - (a) The identification of more detailed and therefore more homogeneous categories of economic activities; and
 - (b) The preparation of regional statistics



Establishment

- The definition of an establishment allows for the possibility that there may be one or more secondary activities carried out in it, but these should be small in magnitude compared with the principal activity
- If a secondary activity within an establishment is as important, or nearly as important, as the principal activity, then the unit is more like a local unit
 - It should be subdivided so that the secondary activity is treated as taking place within an establishment separate from that establishment in which the principal activity takes place



Establishment

- In the case of most small and medium-sized businesses, the enterprise and the establishment will be identical
- Some enterprises are large and complex with different kinds of economic activities undertaken at different locations
 - Such enterprises should be broken into one or more establishments provided that smaller and more homogeneous production units can be identified for which production data can be meaningfully compiled
- Note: Because the establishments of a multi-establishment enterprise are part of the same legal entity, financial transactions and positions cannot always be attributed to a particular location or activity, so the enterprise is more suitable for compilation of financial statistics



Establishment

- The establishment is particularly useful as a statistical unit for compilation and dissemination of information related to its production activities which include the following:
 - Production of goods and services, revenues from sales of goods and services, all associated costs including employee remuneration, taxes on production and imports, subsidies, depreciation and a meaningful operating surplus;
 - Employment information such as numbers of employees, types of employees and hours worked;
 - Stock of non-financial capital used;
 - Changes in inventories and gross fixed capital formation undertaken



Other statistical units

- ❑ The concept of the establishment combines both a kind-of activity dimension and a locality dimension
- ❑ In circumstances in which precision in either the geographic or the activity dimension is not required for a statistical collection, there are other units that may be used as statistical units for the compilation of production or production related statistics



Other statistical units

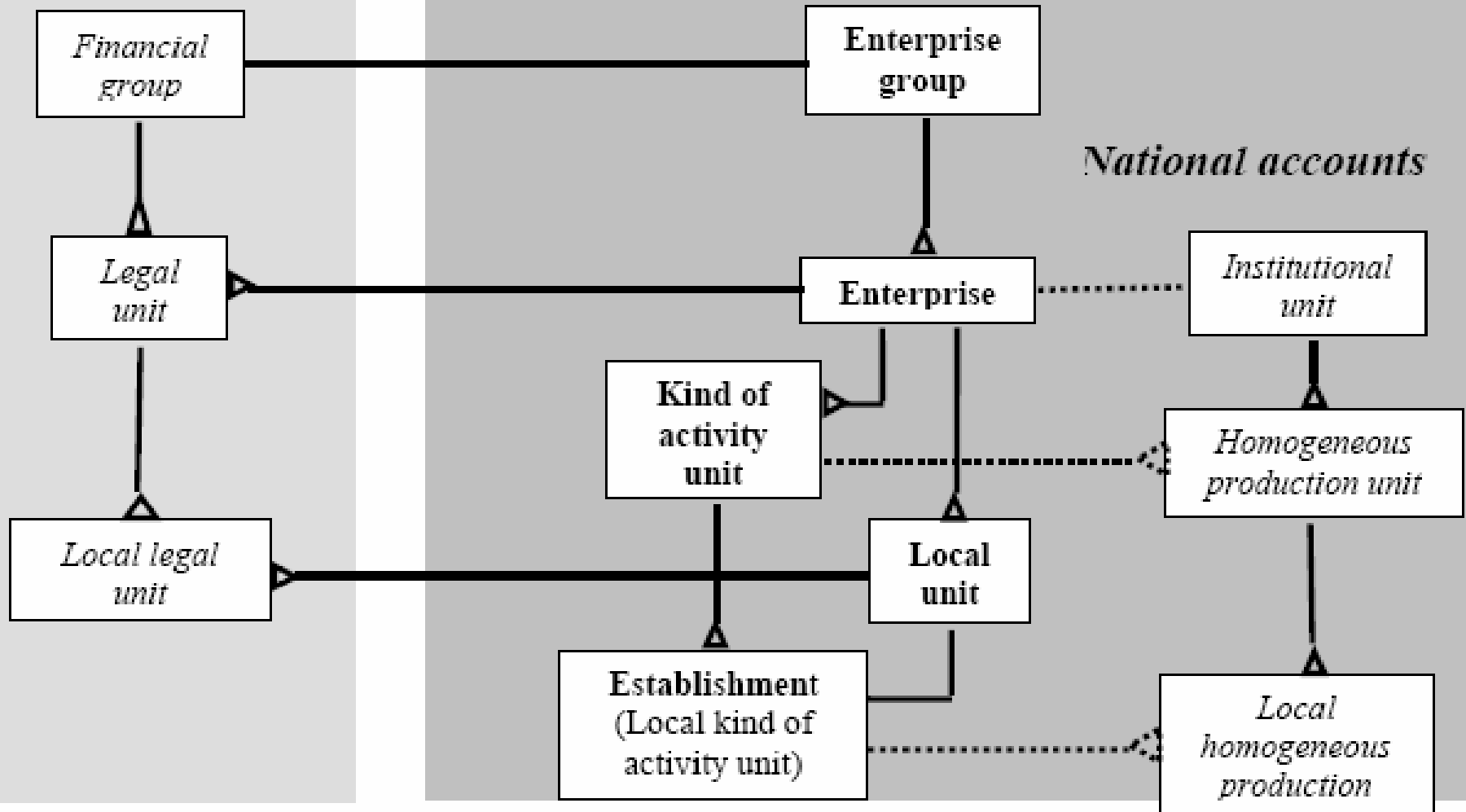
	One or more locations	One single location
One or more activities	Enterprise group Enterprise Institutional unit	Local unit
One activity (almost)	Kind-of-activity unit (KAU)	Establishment (local KAU)
One single (pure) activity	Unit of homogeneous production (UHP)	Local UHP



Administrative units

Statistical units

National accounts





More information

□ "Statistical units"
(ESA/STAT/2008/6)

Available on

<http://unstats.un.org/unsd/industry/guidelines.asp>